

SAT. JAN. 6 - 1917

Rpt. 13.

Received at London Office

10

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 69445

Port of NEWCASTLE-ON-TYNE Date of First Survey 24th Nov. 16 Date of Last Survey 19th Dec. 16 No. of Visits 10.

No. in Reg. Book on the Iron or Steel S. S. "Kriag Pajarsky" Port belonging to Wallsend Shipyard, Wallsend By whom Master Swan Hunter & Wigham Riddell When built 1916

Owners Russian Imperial Government Owners' Address Yard No. 1021. Electric Light Installation fitted by G. H. Holmes & Co. When fitted 1916

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One coupled plant consisting of one Browett Lindley engine, 180 B.H.P. at 400 R.P.M. on 120 lbs S.P. coupled to one "Holmes" dynamo of 45 KW on 110 volts. One Diesel engine supplied by Skiffeld's, coupled to one "Holmes" dynamo, 50 KW, 110 volts.

Capacity of Dynamos. 680 Amperes at 110 Volts, whether continuous or alternating current continuous.

Where ^{are} Dynamos fixed Middle Platform, forward Engine Room Whether single or double wire system is used double.

Position of Main Switch Board near dynamos having switches to groups A.B.C.D. of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each

See special list attached.

If fuses are fitted on main switch board to the cables of main circuit yes and on each auxiliary switch board to the cables of auxiliary circuits yes and at each position where a cable is branched or reduced in size yes and to each lamp circuit yes

If vessel is wired on the double wire system are fuses fitted to both flow and return wires or cables of all circuits including lamp circuits yes

Are the fuses of non-oxidizable metal yes and constructed to fuse at an excess of 100 per cent over the normal current

Are all fuses fitted in easily accessible positions yes Are the fuses of standard dimensions yes If wire fuses are used are permanent instructions fitted on or near each switch board giving particulars of proper size of fuse for each circuit yes

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases yes

Total number of lights provided for 215-25 3P, 4-32 2P, 16-8 4P arranged in the following groups :-

A	56	lights each of	25	candle power requiring a total current of	25.2	Amperes
B	20	lights each of	25	candle power requiring a total current of	16.5	Amperes
C	64	lights each of	25	candle power requiring a total current of	18.2	Amperes
D	44	lights each of	25	candle power requiring a total current of	32.5	Amperes
E		lights each of	32	candle power requiring a total current of		Amperes
2	Mast head lights with	1 lamp each of	32	candle power requiring a total current of	2.03	Amperes
2	Side lights with	1 lamp each of	32	candle power requiring a total current of	2.03	Amperes

Included above

Cargo lights of 3 arc lamps each taking 5 amperes candle power, whether incandescent or arc lights in hexagonal weatherproof lanterns.

Where are the switches controlling the masthead and side lights placed in Wheel-house

DESCRIPTION OF CABLES.

and cables carrying 1254 Amperes comprised of 21 insulated 101 S.W.G. diameter, 78 square inches total sectional area
Main cable carrying 25.2 Amperes, comprised of 19 wires, each 18 S.W.G. diameter, 0.34 square inches total sectional area
Branch cables carrying 12 Amperes, comprised of 4 wires, each 14 S.W.G. diameter, 0.14 square inches total sectional area
Branch cables carrying 14 Amperes, comprised of 4 wires, each 14 S.W.G. diameter, 0.14 square inches total sectional area
Leads to lamps carrying 28 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, 0.008 square inches total sectional area
Cargo light cables carrying - Amperes, comprised of - wires, each - S.W.G. diameter, - square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

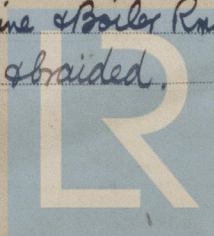
Conductors of tinned copper insulated with pure vulcanized india rubber, taped. Armoured with steel wires braided & compounded overall.

Joints in cables, how made, insulated, and protected none, looping in system carried out, or special connection boxes used.

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances ✓ Are all joints in accessible positions, none being made in bunkers, cargo spaces, or spaces which may at any time be used for carrying cargo, stores, or baggage ✓

Are there any joints in or branches from the cable leading from dynamo to main switch board ✓

How are the cables led through the ship, and how protected In Saloon & Cabin Lead Covered, Engine & Boiler Rms U.S.P. in steel conduits, Main cables to section & distributing fuseboxes are armoured & braided.



© 2020

Lloyd's Register Foundation

006056-006058-006057

DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible yes

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture Armoured & Braided

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Armoured & Braided

What special protection has been provided for the cables near boiler casings U.S.R. in screwed tubing

What special protection has been provided for the cables in engine room U.S.R. in screwed tubing

How are cables carried through beams bushed with fibre through bulkheads, &c. stuffing boxes

How are cables carried through decks in lead or iron deck tubes, flanged & made watertight

Are any cables run through coal bunkers yes or cargo spaces ✓ or spaces which may be used for carrying cargo, stores, or baggage ✓

If so, how are they protected Armoured & Braided

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage no

If so, how are the lamp fittings and cable terminals specially protected ✓

Where are the main switches and fuses for these lights fitted ✓

If in the spaces, how are they specially protected ✓

Are any switches or fuses fitted in bunkers no

Cargo light cables, whether portable or permanently fixed ✓ How fixed ✓

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel ✓

How are the returns from the lamps connected to the hull ✓

Are all the joints with the hull in accessible positions ✓

Is the installation supplied with a voltmeter yes (2), and with an amperemeter yes (2), fixed on main board

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and fuses fitted in positions not liable to the accumulation of petroleum vapour or gas ✓

Are any switches, fuses, or joints of cables fitted in the pump room or companion ✓

How are the lamps specially protected in places liable to the accumulation of vapour or gas ✓

The copper used is guaranteed to have a conductivity of not less than that of the Engineering Standards Committee's standard and the wires are protected by tinning from the sulphur compounds present in the insulating material.

Insulation of cables is guaranteed to have a resistance of not less than 600 megohms per statute mile at 60° Fahrenheit after 24 hours' immersion in water, the test being made after one minute's electrification at not less than 500 volts and while the cable is still immersed.

The foregoing statements are a correct description of the Electric Light installation fitted by us on this vessel and we declare that it is at this date in good order and safe working condition.

COMPASSES.

Distance between dynamo or electric motors and standard compass approx 40 ft

Distance between dynamo or electric motors and steering compass 35 ft

The nearest cables to the compasses are as follows:—

A cable carrying 28 Amperes inside feet from standard compass inside feet from steering compass

A cable carrying 10 Amperes approx 8 feet from standard compass approx 8 feet from steering compass

A cable carrying 14 Amperes 16 feet from standard compass 13 feet from steering compass

Have the compasses been adjusted with and without the electric installation at work at full power yes

The maximum deviation due to electric currents, etc., was found to be nil degrees on each course in the case of standard compass and nil degrees on each course in the case of the steering compass.

SWAN, HUNTER & WIGHAM RICHARDSON LTD.,

William R. Austin Builder's Signature. Date 28/2/16

GENERAL REMARKS.

1 Pair of 4/15 Armoured & Braided wires from Main Switchboard to Marconi Room.

Metal filament "Ceram" lamps fitted throughout excepting in navigation lanterns.

The installation was tested and found to work

this vessel is eligible for THE RECORD Elec. light.

JWR 8/1/17

Wm R. Austin

Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

JM



© 2020

Lloyd's Register Foundation